

REMARKS

Applicants respectfully request reconsideration of the above-identified application in view of the foregoing amendments and following remarks.

Status of Claims

Claims 1-14, 17-29, and 31-33 have been rejected. Claims 1, 31, 32, and 33 have been cancelled without prejudice to their filing in a continuation or divisional application. Claims 34 and 35 have been added. Claims 15, 16, and 30 were previously canceled. Accordingly, Claims 2-14, 17-29, 34, and 35 are now pending in this case. Applicants respectfully assert that the amendments to the claims add no new matter.

Remarks to the Specification

Applicants note that a preliminary amendment amending the claims and adding section headings and a first paragraph referencing prior applications was filed on June 12, 2006 with this Application. It appears that the amendments to the claims were entered but that the amendments to the specification were not entered. Applicants request that the Examiner enter the amendments to the specification in the June 12, 2006 preliminary amendment.

The specification has been amended in this paper to make reference to the new drawing sheets. It is respectfully submitted that there is no addition of new matter.

Remarks to the Drawings

The Examiner objected to the drawings. Figures 17-21 have been added. It is respectfully submitted that there is no addition of new matter.

Telephone Interviews

On December 15 and 17, 2008, the undersigned had a series of telephone conversations with Examiner Duong. The undersigned, and Examiner Duong, each proposed amendments to the claims. No agreement was reached. Applicants thank the Examiner for her time with respect to the telephone interviews.

Claim Rejections

35 U.S.C. § 112 Rejection

With respect to the Examiner's comments in the paragraphs numbered 4 and 5 of page 4 of the Office Action, Claim 19 has been amended in full accordance with the Examiner's helpful suggestions. Accordingly, the rejection under 35 U.S.C. § 112 is respectfully requested to be withdrawn.

35 U.S.C. § 102 Rejection

In the paragraphs bridging pages 5 and 7 of the Office Action, the Examiner has rejected Claims 1-6, 9-12, 19, 21-23, and 25-26 under 35 U.S.C §102 as being anticipated by Kuramoto et al. (U.S. Patent Application Publ. No. 2003/0132885). It is respectfully submitted that the invention as recited in the amended claims is not anticipated by Kuramoto et al. and consequently this rejection should be withdrawn.

The embodiments of Applicants' invention defined by the pending claims is generally directed to an antenna structure comprising at least one feeding component formed as a dielectric ceramic pellet provided with an electrically conductive direct feed structure in direct electrical contact with the pellet. The antenna structure further comprises at least one radiating component having a conductive element as a radiator, which includes a ground connection. The pellet and the radiating component are adapted so that when the antenna structure is mounted on the upper surface of a dielectric substrate having an upper surface, a lower surface, and a groundplane, the pellet is elevated above the upper surface of the dielectric substrate so that the pellet does not directly contact the dielectric substrate or the groundplane. The radiating component is elevated above the upper surface of the dielectric substrate and has a surface that faces a surface of the pellet and an air gap or other dielectric spacer material is provided between the pellet and the radiating component.

It is respectfully submitted that the Kuramoto et al. reference alone or in combination with any other reference does not teach or describe the invention of the pending claims. On the contrary, the reference is devoid of any teaching to have a dielectric ceramic pellet as a feeding component. Kuramoto et al.'s dielectric is neither

ceramic nor is it in the form of a pellet. Instead of having a pellet, which is a densely packed element, Kuramoto et al. depict a dielectric in the form of a table-like structure. Because ceramic materials tend to be brittle and fragile, the table-like structure of Kuramoto et al. could not be made of a ceramic material, nor would a person of skill in the art choose to do so.

Kuramoto et al. is additionally devoid of a teaching of at least one radiating component having a conducting element as a radiator, wherein the radiating component has a ground connection. Still further, the conductive plate 6 of Kuramoto is not connected to ground. Rather, ground in the Kuramoto et al. reference is the groundplane 11 as illustrated in Figure 7.

Accordingly, it is respectfully submitted that the Kuramoto et al. reference does not anticipate Applicants' claimed invention and that the rejection under 35 U.S.C. § 102 should be withdrawn. Such action is respectfully solicited.

35 U.S.C. § 103 Rejections

In the numbered paragraphs 8-15 bridging pages 7 and 13 of the Office Action, the Examiner has rejected Claims 7 and 8 under 35 U.S.C §103 as being unpatentable over Kuramoto et al. in view of Mizuno et al. (U.S. Patent No. 5,010,349), Claims 13 and 14 as being unpatentable over Kuramoto et al. in view of Horie et al. (U.S. Patent Application Publ. No. 2005/0259007), Claims 17-18 as being unpatentable over Kuramoto et al. in view of and Kawahata et al. (U.S. Patent No. 6,147,650), Claim 24 as being unpatentable over Kuramoto et al. in view of Scordilis (U.S. Patent No. 6,384,793), Claims 20 and 27 as being unpatentable over Kuramoto et al., Claims 28, 29, 31, and 32 as being unpatentable over Kuramoto et al. in view of Tan et al. (U.S. Patent No. 6,680,705), and Claim 33 as being unpatentable over Kuramoto et al. in view of and Kawahata et al. (U.S. Patent No. 5,959,582). It is respectfully submitted that the embodiment of the invention as recited in the amended claims is not made obvious by Kuramoto et al., Mizuno et al., Horie et al., Kawahata et al. (either reference), Scordilis, or Tan et al. and consequently the rejections should be withdrawn.

It is respectfully submitted that the Kuramoto et al., Mizuno et al., Horie et al., Kawahata et al. (either reference), Scordilis, or the Tan et al. references alone or in combination with any other reference do not teach or describe Applicants' claimed invention. On the contrary, the skilled antenna designer, even if he were motivated to modify the antenna as taught by the Kuramoto et al. reference according to the teachings of any of the additional references, would not arrive at the embodiments of the present invention as defined in Claims 34 and 35 because the resulting antenna would not have an electrically conductive direct feed structure that is in direct electrical contact with a dielectric ceramic pellet. There are clear structural differences between the claimed antenna structure which has an elevated dielectric pellet with an electrically conductive direct feed, and any structures which would result from any combination of the cited references. Contrary to the combinations of references asserted by the Examiner, all antennas including dielectric components do not operate in the same way and hence their different structures can not be interchangeable with different mechanisms.

Further, such a combination on the part of the Examiner would be improper. Kuramoto et al. depict a dielectric in the form of a table-like structure. A person of skill in the art would not be motivated to combine the ceramic teachings of Kawahata to Kuramoto's table-like structure because ceramic materials tend to be brittle and fragile. As such, the table-like structure of Kuramoto et al. could not be made of a ceramic material due to its fragility, and therefore a person of skill in the art would not choose to do so.

It is respectfully submitted that none of the supplemental references supplies the deficiencies of the Kuramoto et al. reference discussed above. Thus, the Kuramoto et al. reference individually or collectively with any other reference does not teach or describe Applicants' claimed invention. The cancellation of Claims 31 and 32 render their rejections moot.

For the foregoing reasons, Applicants' pending claims are patentable over the references of record and the rejections under 35 U.S.C. §103 are therefore respectfully requested to be withdrawn.

Applicants: IELLICI, Devis et al.

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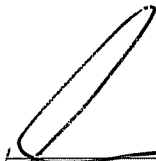
Conclusion

In view of the foregoing, Applicants' submit that the pending claims clearly distinguish over the prior art of record and are in condition for allowance. Favorable consideration and passage to issue of the present application is therefore respectfully requested.

The Examiner is invited to telephone the undersigned to discuss any still outstanding matters with respect to the present application.

Separate from the fees for the petition for one month extension of time, no fees are believed to be due in connection with this paper. However, if any such fees are due, please charge or credit any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,



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